

# NEWSLETTER

August 2006

**Treatment Plant Upgrade- Status and Why We Did It- Congratulations! Thanks to the support, encouragement, and participation of you, our ratepayers, the Spokane River is already receiving substantially less nutrients than before.** The upgrade to the District's wastewater treatment facility is essentially complete. The General Contractor, Williams Brother, along with the main subcontractor Mountain States Electrical have completed the project to increase the facility from 1 to 2 million gallons per day and provide additional treatment of phosphorus and nitrogen. The "break-in" period for the new facility is expected to be 6 months or less. Reduced phosphorus levels have already been recorded from 9mg/liter to less than .2 mg/liter. The question has been asked, why did the District upgrade the treatment plant? What were the options? The District has a prior agreement with Spokane County to connect to the County sewer interceptor and send Liberty Lake sewage to the City of Spokane. The County interceptor is located in the railroad right-of-way near the Home Depot building and flows to the City of Spokane wastewater treatment plant. The County of Spokane has purchased 10 million gallons per day of sewage treatment at the City of Spokane. The County did not want the District to connect to the interceptor because they were running out of their capacity. The options left were to upgrade the District's treatment plant; contract with the City of Spokane and purchase 2 million gallons of the City's treatment plant; or join with the County with its yet-to-be-built treatment plant. The District was faced with running out of capacity in 2006-7. The City of Spokane, to meet the new river standards, will construct upgrades to its 45 million gallon treatment plant costing in the neighborhood of \$500-\$800 million. The County of Spokane's proposed 10 million gallon treatment plant is estimated at \$100-\$200 million. The Board of Commissioners, Liberty Lake Sewer and Water District, decided to move forward with upgrading the existing plant at a cost of \$10 million avoiding the District's higher cost of joining with either the City or County of Spokane. This has turned out to be a very wise decision. Under a proposed plan being developed between the Washington State Department of Ecology (DOE) and the Spokane River treatment plant dischargers, Liberty Lake along with the other dischargers will be permitted to continue discharging to the Spokane River on the condition that certain upgrades are made in the next 10 years and specific standards are met in 20 years. There will be requirements to further improve the effluent from the plant within 10 years and the distinct possibility of getting out of the river during the summer and irrigating parcels of land. It should be noted that the Liberty Lake Sewer and Water District has at no time been without a NPDES discharge permit, and under the proposed plan will have a new permit to discharge in excess of 1 million gallons per day. For additional information contact Lee Mellish at 922-9016.

**Spokane River Cleanup-** The Washington State Department of Ecology (DOE) has determined that the Spokane River does not have enough oxygen during the months of April through October to meet current Water Quality Standards. The best available science shows that excess phosphorus is the main cause of this problem. DOE and Spokane River Dischargers have worked together since late 2004 to draft a plan for improving the Spokane River by reducing the amount of phosphorus in treatment plant effluent. Currently there is not well-established technology that can reliably treat a variety of wastewater discharges and achieve the river phosphorus levels required to improve dissolved oxygen sufficiently to meet water quality standards. The proposed plan calls for the dischargers to put in place and operational prior to the first 10 years improvements that will further reduce phosphorus. At the end of 10 years the achievements will be evaluated. At the end of 20 years, dischargers will be required to meet the new standard or not discharge to the river during the summer months. Other measures that dischargers can implement to reduce phosphorus are water conservation to reduce the amount of water being treated, reusing highly treated water instead of discharging to the river and better control of non-point sources including erosion control, agricultural runoff and elimination of septic tanks.

**Eurasian watermilfoil-** Liberty Lake for several years has experienced the growth of a noxious aquatic weed called Eurasian watermilfoil. First discovered in 1995, this non-native invasive weed is now listed on the state noxious weed list. This weed is responsible for the degradation of many local lakes and rivers. Eurasian watermilfoil is considered to be the most problematic plant in the state of Washington and adversely

impacts aquatic ecosystems by forming dense canopies that often shade out native vegetation and destroy habitat for waterfowl, fish, and other wildlife. Milfoil interferes with recreational activities such as swimming, boating, fishing and water skiing and it has been attributed to swimmer drownings. To control this weed, the District has tried hand harvesting with divers and chemical treatment. The use of the chemical 2,4-D has been successful in controlling the weed. This chemical is approved by the Department of Ecology and is applied by a licensed applicator. It is also registered and approved by U.S. Environmental Protection Agency. The treatment occurred on Wednesday, August 2<sup>nd</sup>. The District is responsible to monitor the lake before and after treatment to determine levels of the chemical. Public notice is always given prior to treatment. The chemical is used in very small concentrations and is significantly reduced in the water after 24 to 48 hours. The chemical does not harm other aquatic plants, fish or animals. For additional information contact BiJay Adams at 922-5443 ext. 30

**Algae in the Lake-** The lake is experiencing an early algae bloom probably stimulated by the unusual spring rains and abnormally hot summer. The spring rains and runoff brought the lake level up 3 feet in one week. Comparing this year's algae concentration with past years would suggest that this is not the worst in the past three years, but is not good. The most prolific algae are Anabaena flosaqua a "blue-green" algae common in many lakes and rivers. Other algae species are Gomphosphaeria, Gleotrichia and Microcystis. The nutrients that support algae growth can come from fertilizer, stormwater runoff, ground water and sediments in the lake. All are difficult to control. For additional information, contact BiJay Adams at 922-5443 ext. 30

**Free Fertilizer-** Residents living in the watershed of the lake can take advantage of the free fertilizer program sponsored by Greenstone Homes. You did receive a voucher in your water/sewer bill for one bag of 18-0-10 phosphorus free fertilizer. Remember that the second number on the bag represents the amount of phosphorus. Please use only fertilizer that does not contain phosphorus. For additional information contact Glenys at 922-5443 ext. 21.

**Pacific Northwest Regional Conference-** The Washington Lake Protection Association, North American Lake Management Society and the Oregon Lakes Association are co-hosting their annual meeting in Portland Oregon on September 13, 14 and 15<sup>th</sup> at Portland State University. Conference topics include nuisance aquatic plants; water quality; lake surveys; lake treatments; fish and lake monitoring. For more information check the website [www.nalms.org/walpa](http://www.nalms.org/walpa) or the District website [www.libertylake.org](http://www.libertylake.org).

**Clarke Street Temporary Vacation-** The Spokane County Commissioners have temporarily vacated for vehicular travel Clarke Street from Liberty Lake Drive to the shoreline of the lake. The District has constructed stormwater swales on Clarke for treatment of stormwater and lake protection; the closure is for protection of the swales.

**Biosolids Disposal-** The biosolids "sludge" generated at the wastewater treatment plant are now being transported to a large farm near Mansfield, Washington. The farm called Boulder Park is accepting biosolids from some 15 separate treatment plants in Washington State. The biosolids are being used as a soil amendment with some nutrient value. The District generates over 2 tons of biosolids per day, which must be disposed of in licensed disposal sites.

**Water Conservation-** What is water conservation and why conserve? A recent study indicates that the consumption of water from the Spokane-Rathdrum Prairie Aquifer (Spokane & Kootenai Counties) is approximately 89,000 gallons per person per year. This is water consumption from all uses including irrigation. The aquifer is the sole source of drinking water for over 400,000 people in Washington and Idaho. Every public well has a water right attached to it. The water right specifies the amount of water that can be withdrawn in a given period of time. The water right cannot be exceeded. A water right is issued by the Washington State Department of Ecology (DOE). The DOE is not issuing any new water rights from the aquifer until the results of a bi-state study of the aquifer is completed. To complicate the picture even more, the aquifer is a source of water for the Spokane River. From the Idaho State line to

Flora, the river recharges the aquifer. From Sullivan Road downstream, the aquifer is recharging the river. Check it out by comparing the amount of water in the river at Harvard Road and again at Sullivan Rd. You will notice a several hundred cubic feet per second difference in the flow. Therefore, when we conserve water it helps not only the aquifer but also the river. The most important water conservation measure is proper lawn irrigation. Lawns in this area only need 1" per week. Measure your water consumption with a tuna fish can placed on the grass when watering. When the can is full, the 7-day limit has been reached. Other water conservation measures include fixing leaks in faucets and toilets, and fine-tuning irrigation controls. The District also provides at no cost low flow showerheads and toilet dams. For more information on water conservation and fine-tuning irrigation systems, contact Bijay Adams at 922-5443 ext. 30.

**Direct Debit Payment of Bills-** The District has implemented a program of direct debit for payment of water and sewer bills. To participate you must complete an authorization agreement for direct payment, which can be found on the District web site [www.libertylake.org](http://www.libertylake.org). You can fax the authorization to the District office at (509) 926-7691 for processing. For additional information contact Glenys at 922-5443 extension 21.

**Water Rights-** The District presently has sufficient water rights for the known planned developments. Additional water rights have recently been obtained from agricultural wells owned by Bill and Judi Williams on the Rocky Hill development. Water rights are issued by the Washington State Department of Ecology (DOE) and allocated to each well. Every well has a water right that determines the maximum amount of water that can be withdrawn. The DOE presently is not issuing new water rights from the aquifer until a study of the aquifer is completed. The aquifer study is being conducted by the United States Geological Survey, Washington Department of Ecology and the Idaho Department of Environmental Quality and is expected to be completed early in 2007. This study will determine the amount of water available in the aquifer and the availability of additional water rights.

**Watershed Pledge Project-** The District and the Washington Department of Ecology are collaborating on a Watershed Pledge Project to engage residents in changing their behaviors to reflect good water stewardship. This project, modeled after the Whatcom County Watershed Pledge, will provide citizens with information about how they can protect and improve rivers, lakes, streams and groundwater. The pledge takes residents through a checklist of practices that can be adopted in the home to prevent pollution and allow them to take pride that they are doing their part to protect local rivers, aquifer, and lakes. The Pledge Program will begin this fall. For more information contact Bijay Adams at 922-5443 ext. 30.

**Board of Commissioner Meetings-** The Board of Commissioners, Liberty Lake Sewer and Water District meet on the third Wednesday of every month 7:00 p.m. at the District Administration Building, 22510 E. Mission. The meeting for the month of August will be rescheduled for the 4<sup>th</sup> Wednesday, August 23, at 7:00 p.m.

**E-Statements for Water and Sewer Bills-** The District is requesting community participation in determining the interest in having electronic billing. Modifications to the billing system will be required. We have created a web site for your response. Go to [www.libertylake.org](http://www.libertylake.org) and click on "Customer Service". Your response is appreciated. For additional information contact Glenys at 922-5443 ext. 21.

**District Web Site-** For information regarding your water and sewer utility, check out the District web site at [www.libertylake.org](http://www.libertylake.org). You will also find information on water conservation, watershed, lake protection and other District activities. Other web sites of interest with information on the aquifer, Spokane Aquifer Joint Board ([www.spokaneaquifer.org](http://www.spokaneaquifer.org)), reclaimed water use in Washington, (<http://www.ecy.wa.gov/programs/wq/reclaim/index.html>), Spokane River TMDL Study ([www.client-ross.com/spokane-river/full-group.htm](http://www.client-ross.com/spokane-river/full-group.htm)), and water conservation ([www.ecy.wa.gov/programs/wr/ws/wtrcnsv.html](http://www.ecy.wa.gov/programs/wr/ws/wtrcnsv.html))

**Water Reuse at Treatment Plant-** Instead of using drinking water to wash down the machinery and equipment at the wastewater treatment plant, the new upgraded plant

has been designed to use the treated effluent as utility water. This will save thousands of gallons of water per day pumped from the aquifer.

**District Projects-** The District plans to replace the deteriorating sewer main at the corner of Melkapsi and Liberty Drive. This has been a problem for several years with sewer backups and property damage. Telemetry upgrades to District sewer lift stations is presently underway. The Wicomico lift station sewer main is under review and meetings with residents will occur this summer.

**Demonstration Garden-** The District's demonstration garden at the Administration Offices was created to demonstrate a variety of plants that are low maintenance, low water consumers and grow well in the area. The garden is located at the District's administration building 22510 E. Mission. In an effort to reduce water consumption, the District in 2005 added to the garden boulders and river rock. In addition, a portion of the irrigation system was turned off entirely. The overall effect was a 40% reduction in water use at the building. This year additional lawn will be removed and replaced with low maintenance trees and shrubs that require little or no water. Thanks to the volunteers that have assisted in maintenance of the garden. We are in need of signage to identify the plants. If you can help, please contact Bijay Adams at 922-5443 ext. 30.

**Property Values and Lake Quality-** According to *Water Quality Affects Property Values: A Case Study of Selected Maine Lakes (1996)*, a permanent one-meter drop in water clarity can cause real estate values to drop as much as 15%.

**Aquifer Virtual Field Trip-** A popular Internet field trip site for students and teachers is the Aquifer Virtual Field Trip at [www.spokaneaquifer.org/kids/index.htm](http://www.spokaneaquifer.org/kids/index.htm). Learn about the hydrologic cycle, ground water aquifers, Ice Age Floods, how water is used, water-related poetry and art, effects of urbanization and so much more. There are two versions, grades 1-4 and grades 5-8.

*What lies behind us and what lies before us are small matters compared to what lies within us. - Ralph Waldo Emerson*